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Preface

This International Workshop on Interactive Distributed Multimedia Systems and Telecommunication Services (IDMS) is the fourth in a series which started in 1992. The first workshop was organized by Prof. K. Rothermel and Prof. W. Effelsberg, and took place in Stuttgart in 1992. It had the form of a national forum for discussion on multimedia issues related to communications. The succeeding event was “attached” as a workshop to the German computer science conference (GI Jahrestagung) 1994 in Hamburg organized by Prof. W. Lamersdorf. The chairs of the third IDMS, Dr. E. Moeller and B. Butscher, enhanced the event to become a very successful international meeting in Berlin in March 1996 (the proceedings were published by Springer-Verlag as Lecture Notes in Computer Science, Volume 1045). At that time it was decided to hold the fourth IDMS in Darmstadt under the responsibility of both of us (Prof. R. Steinmetz as general chair and Dr. L. Wolf as program chair). We organized this event at the Darmstadt University of Technology where we started in spring 1996 to build up from scratch a new professorship and related research groups.

For many years we have known that the convergence of multimedia and communications provides for a large variety of challenging research issues. Furthermore, applications and systems resulting from research and development in this area will find, and partly have found already, wide interest in the society in general. The goal of the workshop is to provide a forum for discussion of current work and future research areas between the related fields of multimedia systems, computer communications, and telecommunications – for example, the role of quality of service with respect to resource management and adaptation policies, protocols, and mechanisms. Hence we attracted contributions from the following areas:

- High-speed and multimedia networks
- ATM networks and applications
- Mobile multimedia systems
- Multimedia communication protocols
- Compression algorithms
- Quality of service and media scaling
- Resource management
- Multimedia operating systems
- Synchronization
- Multimedia database and storage
- Video-on-demand systems, components and architectures
- Multimedia programming languages, abstractions, and APIs
- Development tools for distributed multimedia applications
- Multimedia-specific intelligent agents
- Multimedia/hypermedia applications and tools, production, and authoring
- Conferencing
- Computer supported collaborative work
- Digital libraries
- Interactive television
- Virtual reality systems

We received over 100 submissions, 94 of which were considered to comply with the areas and style of the workshop. The submissions came from 20 countries all over the world, most from Europe, but many from America and Asia as well. These papers were distributed to the international program committee for review. In total, we requested a large number of reviews from the program committee and additional reviewers and, thanks to the very good work of all reviewers, we received at least three

to four reviews per submission. Since the overall quality of the submissions was high, the program committee had the difficult task of deciding which papers to accept. During the PC meeting 41 papers were selected for presentation at the workshop and for publication in the proceedings. All these selected papers are included in this book. The PC meeting also decided to have a best paper award. The work on the MBone VCR performed by W. Holfelder under the guidance of Prof. W. Effelsberg at the University of Mannheim was selected as the best paper of IDMS'97.

Due to our strong commitment to the scientific world and the professional societies, IDMS'97 is held in cooperation with GI, VDE ITG, ACM SIGMM, and IEEE Germany Section, and with technical co-sponsorship by IEEE Communications Society. Thanks to grants and help from Deutsche Telekom (Darmstadt), Digital Equipment CEC (Karlsruhe), Ericsson Eurolab (Herzogenrath), IBM Stiftungsfond (Essen), NEC Europe (Berlin), o.tel.o (Essen), and Panasonic European Laboratories (Langen), we have moderated the fees such that researchers in academia as well as in industry could afford to participate.

The next IDMS will be chaired by Prof. T. Plagemann, University of Oslo, Norway, and will take place in Oslo in late 1998 or early 1999. If you as reader and/or participant at IDMS'97 have any suggestions as to how to improve or what to change, please let us know.

Finally we would like to thank Martin Karsten and his team from the Industrial Process and System Communications (KOM) group at Darmstadt University of Technology for their exceptional work in organizing all issues around our successful workshop.

Darmstadt, September 1997

Ralf Steinmetz and Lars Wolf

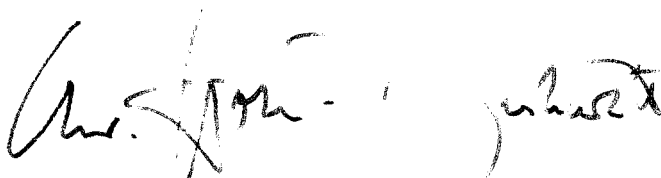
Address from the Minister of Science and Arts

of the Federal State Hessen, *Dr. Christine Hohmann-Dennhardt*, to the "4th European Workshop on Interactive Distributed Multimedia Systems and Telecommunication Services (IDMS'97)", September 10th–12th, at Darmstadt University of Technology.

The Federal State Government of Hessen and I are delighted to extend our cordial greetings and best wishes for a successful workshop to the participants of IDMS'97. I am glad to see so many experts with international reputation in the field of information technology congregated at Darmstadt University of Technology. This provides the opportunity to present interesting and deep research results to a broad professional audience.

Multimedia technology has made the worldwide exchange of information, ideas and cultural entities possible to new heights. In an early stage, Hessen has recognized that this innovative technology has also an economical impact. Therefore universities have been supported in corresponding activities. The upcoming start of the "Multimedia-Initiative Hessen" is expected to give this research area additional stimulus. For these reasons I am convinced that this workshop will raise major interest here in Hessen.

I would like to wish all participants an interesting and pleasant stay in Darmstadt.

A handwritten signature in black ink, appearing to read 'Christine Hohmann-Dennhardt', with a stylized flourish at the end.

Dr. Christine Hohmann-Dennhardt
(Minister of Science and Arts of the Federal State Hessen)

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